

Notice of Allowability

Application No.

10/669,473

Examiner

Wanda M. Negrón

Applicant(s)

YAMAZAKI, AKIHISA

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on 5/29/2007.
2. ☒ The allowed claim(s) is/are 1, 11-18, and 2-10, renumbered consecutively as claims 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 5/29/2007, with respect to independent claims 1 and 2 have been fully considered and are persuasive. The rejection of claims 1 and 2 has been withdrawn. The objection of claims 3-10 has also been withdrawn.

Allowable Subject Matter

2. **Claims 1-18 are allowed.**

3. The following is an examiner's statement of reasons for allowance:

4. Regarding claims 1 and 11-18, the relevant prior art fails to disclose or reasonably suggest an auto-focus method comprising the steps of calculating a first evaluation on contrast of an image taken by a first image taking element having a plurality of pixels, **calculating a second evaluation on contrast of an image taken by a second image taking element having a plurality of pixels smaller than those of the first image taking element, and adjusting the focus on the basis of the first and second evaluations on contrast** so that the object is imaged on a solid image taking device.

5. Regarding claims 2-10, the relevant prior art fails to disclose or reasonably suggest an auto-focus system comprising means for calculating a first evaluation on contrast of an image taken by a first image taking element having a plurality of pixels, **calculating a second evaluation on contrast of an image taken by a second image taking element having a plurality of pixels smaller than those of the first image**

taking element, and adjusting the focus on the basis of the first and second evaluations on contrast so that the object is imaged on a solid image taking device.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Oda (US Patent No. 6,831,692 B1) discloses a solid-state image pickup device comprising pixels of a first and a second sensitivity for broadening the dynamic range of a signal output.
- Parulski et al. (US Patent No. 5,668,597) teach an auto-focus technique employing a progressive scan image sensor with a fast dump structure.
- Kadohara et al. (US Patent No. 6,577,344 B2) disclose a focus detection apparatus for detecting focus on the basis of the output from a pair of area sensors.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda M. Negrón whose telephone number is (571)

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270-1129. The examiner can normally be reached on Mon-Fri 6:30 am - 4:00 pm
alternate Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wanda M. Negrón/

Examiner, Art Unit 2622
August 13, 2007

A handwritten signature in black ink, appearing to read 'David Ometz', with a long horizontal line extending to the right.

DAVID OMETZ
SUPERVISORY PATENT EXAMINER